

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) In a broadband communication system, a method for allocating a communication resource that comprises a ~~communication~~ reverse link traffic channel, the method comprising steps of:

receiving a communication resource access request at a time that data received via the ~~communication~~ reverse link traffic channel is currently being demodulated; and

in response to receiving the communication resource access request, transmitting a grant of access to the ~~communication~~ reverse link traffic channel.

2. (Original) The method of claim 1, wherein the access grant is transmitted prior to completion of the demodulation of the data.

3. (Currently Amended) The method of claim 1, wherein the step of transmitting a grant of access to the ~~communication~~ reverse link traffic channel comprises steps of:

determining a time that a demodulator will be available;

determining a time that a grant of access to the ~~communication~~ reverse link traffic channel can be transmitted based on the time that the demodulator will be available; and

transmitting an access grant based on the received request and on the determined time that the grant of access to the ~~communication~~ reverse link traffic channel can be transmitted.

4. (Currently Amended) The method of claim 3, wherein the step of transmitting a grant of access to the ~~communication~~ reverse link traffic channel further comprises a step of determining a time that the demodulator will finish demodulating the received message.

5. (Currently Amended) The method of claim 3, wherein the step of transmitting a grant of access to the ~~communication~~ reverse link traffic channel further comprises a step of determining a time interval between the time that the demodulator will be available and the time that an access grant can be transmitted.

6. (Original) The method of claim 1, wherein the communication resource access request is a preamble.

7. (Original) The method of claim 1, wherein the access grant is an acknowledgment.

8. (Currently Amended) An apparatus for allocating a communication resource in a broadband communication system, wherein the communication resource comprises a ~~communication~~ reverse link traffic channel, the apparatus comprising:

an access request detector that detects a receipt of a communication resource access request;

a demodulator that is capable of demodulating messages received via the ~~communication~~ reverse link traffic channel;

a means for generating a grant of access to the ~~communication~~ reverse link traffic channel and the demodulator in response to reception of the communication resource access request; and

wherein the communication resource access request is received at a time that the demodulator is engaged in a demodulation of a ~~received message~~ received via the reverse link traffic channel.

9. (Original) The apparatus of claim 8, wherein the access grant is generated prior to completion of demodulation of the message.

10. (Currently Amended) The apparatus of claim 8, wherein the a means for generating a grant of access to the ~~communication~~ reverse link traffic channel comprises:

a means for determining a time that the demodulator will be available;

a means for determining a time of transmission of a grant of access to the ~~communication~~ reverse link traffic channel based on the determined time of demodulator availability; and

a means for generating an access grant based on the received communication resource access request and on the determined time of transmission of the access grant.

11. (Currently Amended) The apparatus of claim 10, wherein the means for generating a grant of access to the ~~communication~~ reverse link traffic channel further comprises a means for determining a time that the demodulator will finish demodulating the received message.

12. (Currently Amended) The apparatus of claim 10, wherein the means for generating a grant of access to the ~~communication~~ reverse link traffic channel further comprises a means for determining a time interval between the time that the demodulator will be available and the time that an access grant may be transmitted.

13. (Original) The apparatus of claim 8, wherein the access grant comprises an acknowledgment.

14. (Original) The apparatus of claim 8, wherein the communication resource access request comprises a preamble and wherein the access request detector comprises a preamble detector that detects a preamble in a received signal.

15. (Currently Amended) A communication device capable of operating in a broadband communication system, the communication device comprising:

a receiver for receiving an communication resource access request;

an access request detector coupled to the receiver that detects a receipt of the communication resource access request;

a demodulator coupled to the receiver that is capable of demodulating messages received via a ~~communication~~ reverse link traffic channel;

a means for generating a grant of access to the demodulator in response to reception of the communication resource access request;

a modulator for modulating the access grant onto a radio frequency signal to produce a modulated access grant;

a transmitter for transmitting the modulated access grant; and

wherein the communication resource access request is received at a time that the demodulator is engaged in a demodulation of ~~an already received~~ a message received via the reverse link traffic channel.

16. (Original) The communication device of claim 15, wherein the access grant is generated when the demodulator is engaged in a demodulation of an already received message.

17. (Currently Amended) The communication device of claim 15, wherein the ~~a~~ means for generating a grant of access to the ~~communication~~ reverse link traffic channel comprises:

a means for determining a time that the demodulator will be available;

a means for determining a time of transmission of a grant of access to the ~~communication~~ reverse link traffic channel based on the determined time of demodulator availability; and

a means for generating an access grant based on the received communication resource access request and on the determined time of transmission of the access grant.

18. (Currently Amended) The communication device of claim 17, wherein the means for generating a grant of access to the ~~communication~~ reverse link traffic channel further comprises a means for determining a time that the demodulator will finish demodulating the received message.

19. (Currently Amended) The communication device of claim 17, wherein the means for generating a grant of access to the ~~communication~~ reverse link traffic channel further comprises a means for determining a time interval between the time that the demodulator will be available and the time that an access grant may be transmitted.

20. (Original) The communication device of claim 15, wherein the communication resource access request comprises a preamble and wherein the access request detector comprises a preamble detector capable of detecting the preamble.

21. (Original) The communication device of claim 15, wherein the access grant comprises an acknowledgment.

22. (New) The method of claim 1, further comprising a step of determining an earliest time that a grant of access to the reverse link traffic channel can be conveyed to a mobile station and wherein transmitting comprises transmitting the grant of access to the mobile station at or after the determined earliest time.

23. (New) The apparatus of claim 8, wherein the means for generating a grant of access to the communication channel comprises a means for determining an earliest time that a grant of access to the reverse link traffic channel can be conveyed to a mobile station and wherein the apparatus further comprises a means for conveying the grant of access to the mobile station at or after the determined earliest time.

24. (New) The communication device of claim 15, wherein the means for generating a grant of access to the communication channel comprises a means for determining an earliest time that a grant of access to the reverse link traffic channel can be conveyed to a mobile station and wherein the apparatus further comprises a means for conveying the grant of access to the mobile station at or after the determined earliest time.